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PATENT APPLICATION

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IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Michael HARVILLE et al.

Confirmation No.: 3553

Application No.: 10/698,196

Examiner: Barbara N. Burgess

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Group Art Unit: 2457

Title: SERVICE MANAGEMENT USING MULTIPLE SERVICE LOCATION MANAGERS

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PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 10/02/2009.

☒ The fee for filing this Appeal Brief is \$540.00 (37 CFR 41.20).

☐ No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month  
\$130

☐ 2nd Month  
\$490

☐ 3rd Month  
\$1110

☐ 4th Month  
\$1730

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$540. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant:	Harville et al.	Patent Application	
Serial No.:	10/698,196	Group Art Unit:	2457
Filed:	October 30, 2003	Examiner:	Burgess

For: SERVICE MANAGEMENT USING MULTIPLE SERVICE LOCATION  
MANAGERS

Appeal Brief

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I. Real Party in Interest

The assignee of the present embodiments is Hewlett-Packard Development Company.

## II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

### III. Status of Claims

Claims 1 and 38-76 are remain pending. Claims 2-37 are cancelled.  
Claims 1 and 38-76 are rejected. This Appeal involves Claims 1 and 38-76.

#### IV. Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Action has not been filed.

## V. Summary of Claimed Subject Matter

Independent Claims 1 and 56 of the present application pertain to embodiments associated with managing a streaming media service and a system for providing streaming content, respectively.

As recited in Claim 1, “[a] method for managing a streaming media service” is described. This embodiment is depicted at least in Fig. 3. “Figure 3 is a flowchart 300 of operations performed in accordance with an embodiment of the present invention for managing a streaming media service.” (page 48, lines 1-2). “At operation 302, a request for a streaming media service is received from a client wherein the streaming media service includes a media service component” (page 48, lines 17-19). “At operation 304 of Figure 3, a service location manager to which to provide the request is selected from a plurality of service location managers” (page 48, lines 22-23). “At operation 306, a service provider to which to assign the media service component is selected from a plurality of service providers of a network” (page 49, lines 2-3). As described in the instant specification, with reference at least to Fig. 1A, “[s]ervice location managers 120 and 122 function to select a service provider (e.g., service provider 130, 132, 134 or 136) that can perform a requested type of service on an item of content to produce a service result that is provided to a client device 150. One or more service providers are known to each service location manager, and each service location manager selects among the service providers known to it in order to assign a service provider to perform a requested service” (page 15, lines 4-10).



“At operation 308 of Figure 3, the service provider selected to perform the media service component is informed of its assignment, therein enabling the requested streaming media service to be performed on streaming media” (page 49, lines 7-9). Also, “providing said client information for locating and contacting said service provider to receive said streaming media from said service provider without utilizing said service location manager” can be found at least at page 22 lines 18-25 and page 34, lines 9-15.

As recited in Claim 56, “[a] system for providing streaming content to a client device” is described. This embodiment is depicted at least in Figures 1A, 1B and 2. “Figure 1A is a block diagram of a system 100 for servicing content from a content source 110 and for delivering the service result content to a client device 150 in accordance with an embodiment of the present invention” (page 7, lines 1-3). “[S]ystem 100 includes a plurality of service location managers exemplified by service location managers 120 and 122, a plurality of service portals exemplified by service portals 140 and 142, and a plurality of service providers exemplified by service providers 130, 132, 134 and 136” (page 10, lines 1-4). “Service providers 130, 132, 134 and 136 each function to provide one or more types of services” (page 14, lines 13-15). Moreover, the specification recites that “[p]ortals 140 and 142 can each be well-published portal sites that can each serve as the first point of contact between client device 150 and system 100” (page 11, lines 13-14). “At the beginning of a session, client device 150 sends message 1 to a portal (e.g., 140)” (page 25, lines 6-8). “After receiving message 1, portal 140 selects a service location manager (e.g., 120 or

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122) to which to send message 2” (page 26, lines 10-11). “[S]ervice location manager 120 selects from among the service providers (e.g., 130 and 132) that it supervises which one is to perform the service identified from message 2” (page 31, lines 17-19). “Within Figure 1A, in one embodiment, the addition of message A from service location manager 120 to the selected service provider (e.g., 130) is shown. With reference to the present example, message A can be sent from service location manager 120 to service provider 130 at any time after message 2 and before message 5” (page 39, lines 16-20). “[I]n addition to identifying the item of content and perhaps the content source, message A can also include information enabling service provider 130 to establish communication with client device 150. In other words, instead of having client device 150 initiate the transfer of communication from portal 140 to service provider 130, the transfer of communication can be initiated by service provider 130 in a manner that can still be seamless and transparent to a user of client device 150” (page 40, lines 13-19). Also, “providing said service provider with information to transfer communication from said portal to said service provider for providing said streaming content to said client from said service provider” can be found at least at page 22 lines 18-25 and page 34, lines 9-15.

VI. Grounds of Rejection to be Reviewed on Appeal

1. Claims 1 and 38-76 are rejected under 35 U.S.C. §102(e) as being anticipated by Lumelsky et al. (US 6,529,950), hereinafter referenced as "Lumelsky."

## VII. Arguments

### 1. Whether Claims 1 and 38-76 are patentable over Lumelsky.

The Final Office Action states that Claims 1 and 38-76 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lumelsky. Appellants respectfully submit that the embodiments as recited in Claims 1 and 38-76 are patentable over Lumelsky for at least the following rationale.

#### Claims 1 and 38-55

Independent Claim 1 recites an embodiment of the present invention (emphasis added):

A method for managing a streaming media service, said method comprising:  
receiving a request for a streaming media service from a client, said streaming media service comprising a media service component;  
selecting a service location manager to which to provide said request from a plurality of service location managers;  
selecting a service provider to which to assign said media service component from a plurality of service providers of a network, wherein said selecting said service provider is performed by said service location manager;  
informing said service provider of said assignment to perform said media service component, causing said service provider to prepare to perform said streaming media service on streaming media; and  
providing said client information for locating and contacting said service provider to receive said streaming media from said service provider without utilizing said service location manager.

Claims 38-55 that depend from Claim 1 also include these embodiments.

MPEP §2131 provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a

single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ... “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

First, Appellants respectfully submit that Lumelsky does not disclose “providing said client information for locating and contacting said service provider to receive said streaming media from said service provider without utilizing said service location manager,” as claimed (emphasis added). Appellants understand Lumelsky to disclose “a system and method for brokering multimedia resources and services to multimedia clients” (col. 1, lines 10-12). With reference to Figure 1, Appellants understand Lumelsky to disclose that all service provided from media servicers 70 are communicated to applications 11 via RMF core. For instance, Lumelsky recites that “[t]he resultant match or set of matches is returned to the application 11. A set would be returned if the negotiator could not disambiguate amongst equally weighted but different selections. Now the application with its knowledge, either alone or in conjunction with user interaction, may select a service from amongst the set. Previewing a service, to assess its quality and/or content may also be part of this overall mapping process that ultimately results in the user receiving service” (col. 4, line 62 - col. 5, line 3). Accordingly, Appellants understand Lumelsky to disclose that RMF system 10 provides selected media to applications 11.

Moreover, with reference to Figure 2, Lumelsky recites “[t]his basic framework provides service location transparency through a mapping of an

application's service request, containing a generic service identifier, into a specific system identifier containing a complete service reference that is used by the application to access the media service. Location transparency enables the framework to provide fault tolerance and high availability of services" (emphasis added; col. 5, lines 15-21).

In particular, Appellants respectfully submit that RMF system 10 does not provide information identifying a location of the media servers 70 to the application 11. In contrast, by disclosing that the location of the service is transparent to the application 11, Appellants respectfully submit that Lumelsky does disclose each and every element as set forth in the claims, and thus does not support a *prima facie* case of anticipation.

#### Claims 56-76

Appellants respectfully submit that Lumelsky does not disclose "said service location manager for receiving said request from said portal and for selecting a service provider from said plurality of service providers and informing said service provider of said assignment to perform said service on said streaming input content to produce said streaming content and for providing said service provider with information to transfer communication from said portal to said service provider for providing said streaming content to said client from said service provider" (emphasis added).

Independent Claim 56 recites an embodiment of the present invention  
(emphasis added):

A system for providing streaming content to a client device,  
said system comprising:  
a plurality of service location managers;  
a plurality of service providers, each service provider  
capable of performing a service on an item of streaming input  
content to produce said streaming content; and  
a portal providing a first point of contact for said client  
device, said portal for receiving from said client device a request for  
performance of said service on an item of streaming input content,  
said portal for selecting a service location manager to which to  
provide said request from said plurality of service location  
managers, said service location manager for receiving said request  
from said portal and for selecting a service provider from said  
plurality of service providers and informing said service provider of  
said assignment to perform said service on said streaming input  
content to produce said streaming content and for providing said  
service provider with information to transfer communication from  
said portal to said service provider for providing said streaming  
content to said client from said service provider.

Claims 57-76 that depend from independent Claim 56 also include these  
embodiments.

As presented above, Appellants understand Lumelsky to disclose “a system  
and method for brokering multimedia resources and services to multimedia clients”  
(col. 1, lines 10-12). Lumelsky recites that “there is provided a Resource  
Management Framework (“RMF”) that provides building blocks used to build a  
mapping system for negotiating multivariate application-level quality of service  
specifications across the offerings from one or more candidate servers. A brokering  
nucleus implements an iterative negotiated mapping process between user (i.e.,

session) requirements and systems (i.e., service, and resource) constraints”

(emphasis added; col. 2, lines 6-14).

As presented above, with reference to Figure 1, Appellants understand Lumelsky to disclose that all service provided from media servicers 70 are communicated to applications 11 via RMF core. For instance, Lumelsky recites that “[t]he resultant match or set of matches is returned to the application 11. A set would be returned if the negotiator could not disambiguate amongst equally weighted but different selections. Now the application with its knowledge, either alone or in conjunction with user interaction, may select a service from amongst the set. Previewing a service, to assess its quality and/or content may also be part of this overall mapping process that ultimately results in the user receiving service” (col. 4, line 62, through col. 5, line 3). Appellants understand Lumelsky to disclose that RMF system 10 provides selected media to applications 11.

With reference to Figure 2, Lumelsky recites “[t]he Negotiator 40 takes an application's request for service and passes it to the Service Mapper component 50 to locate services that match the request” (col. 6, lines 3-5) and “[t]he negotiator 40 will then apply its own installed policies to update/modify this set before it is returned to the service requester” (col. 6, lines 29-31).

In particular, Appellants respectfully submit that RMF system 10 does not provide information to a media server 70 to transfer communication from negotiator



40 to a media server 70. In contrast, by disclosing that the RMF system 10, and in particular negotiator 40, are involved in all communications between a media server 70 and application 11, Appellants respectfully submit that Lumelsky does disclose each and every element as set forth in the claims, and thus does not support a *prima facie* case of anticipation.

In summary, Appellants respectfully submit that the rejections of the Claims are improper as the rejection of Claims 1 and 38-76 does not satisfy the requirements of a *prima facie* case of anticipation as Lumelsky does not disclose “each and every element as set forth in the claim” as required.

Appellants respectfully assert that Lumelsky does not anticipate the claimed embodiments of the present invention as recited in independent Claims 1 and 56, that these claims overcome the rejection under 35 U.S.C. § 102(e), and that these claims are thus in a condition for allowance. Therefore, Appellants respectfully submit that Lumelsky also does not anticipate the claimed embodiments as recited in Claims 38-55 that depend from independent Claim 1 and Claims 57-76 that depend from independent Claim 56 also overcome the rejection under 35 U.S.C. § 102(e), and are in a condition for allowance as being dependent on an allowable base claim.

Conclusion

Appellants believe that pending Claims 1 and 38-76 are patentable over the asserted art.

Accordingly, Appellants respectfully submit that the rejections of Claims 1 and 38-76 are improper and should be reversed.

The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellants' undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,

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Date: December 2, 2009

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VIII. Appendix - Clean Copy of Claims on Appeal

1. A method for managing a streaming media service, said method comprising:

- receiving a request for a streaming media service from a client, said streaming media service comprising a media service component;
- selecting a service location manager to which to provide said request from a plurality of service location managers;
- selecting a service provider to which to assign said media service component from a plurality of service providers of a network, wherein said selecting said service provider is performed by said service location manager;
- informing said service provider of said assignment to perform said media service component, causing said service provider to prepare to perform said streaming media service on streaming media; and
- providing said client information for locating and contacting said service provider to receive said streaming media from said service provider without utilizing said service location manager.

38. The method as described in Claim 1, wherein said selecting said service location manager comprises:

- maintaining a record comprising identifying information of a service location manager among said plurality of service location managers; and
- selecting said service location manager according to said record.

39. The method as described in Claim 1, wherein said selecting said service location manager comprises:

- maintaining a record comprising a prioritized list of at least one service location manager among said plurality of service location managers; and
- selecting said service location manager according to the order of priority of said list of said record.

40. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising identifying information for a set of service location managers among said plurality of service location managers; and  
selecting said service location manager randomly from said record.

41. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising identifying information for a set of service location managers among said plurality of service location managers; and  
selecting said service location manager in a round robin manner from said record.

42. The method as described in Claim 1, wherein said selecting said service location manager comprises a comparison of processing loads of at least two service location managers among said plurality of service location managers.

43. The method as described in Claim 1, wherein said selecting said service location manager comprises a comparison of available resources of a first set of service providers supervised by said service location manager and available resources of a second set of service providers supervised by a second service location manager.

44. The method as described in Claim 1, wherein said selecting said service location manager is based on an estimate of a network communication condition between two entities connected by the network.

45. The method as described in Claim 44, wherein said estimate of said network communication condition is associated with said client.

46. The method as described in Claim 44, wherein said estimate of said network communication condition is associated with a content source of said streaming media.

47. The method as described in Claim 1, wherein said selecting said service location manager is based on one of the group consisting of: pending service request queue length of a service location manager, expected latency of a service location manager for assigning said service request, and available network communication bandwidth of a service location manager.

48. The method as described in Claim 1, further comprising:  
notifying a second service location manager among said plurality of service location managers of the assignment of said service provider to perform said media service component.

49. The method as described in Claim 1, further comprising:  
notifying a second service location manager among said plurality of service location managers of the completion of performance of said media service component.

50. The method as described in Claim 1, further comprising:  
a second service location manager assuming the role of said service location manager if said service location manager is determined to be non-responsive.

51. The method as described in Claim 1, further comprising:  
maintaining a record comprising identifying information of a set of service location managers among said plurality of service location managers, each service location manager of said set of service location managers supervising said service provider; and

notifying said set of service location managers according to said record of said assignment of said service provider to perform said media service component.

52. The method as described in Claim 51, wherein said maintaining and said notifying is performed by said service provider or said service location manager.

53. The method as described in Claim 1, further comprising:  
maintaining a record comprising identifying information of a set of service location managers among said plurality of service location managers, each service location manager of said set of service location managers supervising said service provider; and

notifying said set of service location managers according to said record of the completion of performance of said media service component by said service provider.

54. The method as described in Claim 53, wherein said maintaining and said notifying is performed by said service provider or said service location manager.

55. The method as described in Claim 1, wherein said service provider is supervised by more than one service location manager among said plurality of service location managers.

56. A system for providing streaming content to a client device, said system comprising:

a plurality of service location managers;  
a plurality of service providers, each service provider capable of performing a service on an item of streaming input content to produce said streaming content; and

a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers, said service location manager for receiving said request from said portal and for selecting a service provider from said plurality of service providers and informing said service provider of said assignment to perform said service on said streaming input content to produce said streaming content and for providing said service provider with information to transfer communication from said portal to said service provider for providing said streaming content to said client from said service provider.

57. The system of Claim 56, wherein said portal maintains a record comprising a prioritized listing of at least one service location manager among said plurality of service location managers and selects said service location manager in order of priority according to said prioritized listing.

58. The system of Claim 56, wherein said portal maintains a record comprising identifying information of a set of service location managers among said plurality of service location managers and selects said service location manager in a round robin manner from said record.

59. The system of Claim 56, wherein said portal selects said service location manager by comparing processing loads of at least two service location managers among said plurality of service location managers.

60. The system of Claim 56, wherein said portal selects said service location manager by comparing available resources of a first set of service providers supervised by said service location manager and available resources of a second set of service providers supervised by a second service location manager.

61. The system of Claim 56, wherein said portal selects said service location manager based on an estimate of a network communication condition between two entities connected by the network.

62. The system of Claim 56, wherein said service location manager notifies a second service location manager among said plurality of service location managers of said assignment of said service provider to perform said service.

63. The system of Claim 56, wherein said portal determines if said service location manager of said plurality of service location managers is non-responsive.

64. The system of Claim 63, wherein said portal activates a second service location manager of said plurality of service location managers to assume the role of said service location manager, provided said portal determines said service location manager to be non-responsive.

65. The system of Claim 56, wherein said service provider is supervised by more than one service location manager of said plurality of service location managers.

66. The system of Claim 65, wherein said service provider maintains a record comprising identifying information of service location managers that supervise it.

67. The system of Claim 66, wherein said service provider notifies said service location managers that supervise it of said assignment to perform said service.



68. The system of Claim 66, wherein said service provider notifies said service location managers that supervise it of completion of performance of said service by said service provider.

69. The system of Claim 65, wherein said service location manager maintains a record comprising identifying information of a second service location manager that also supervises said service provider.

70. The system of Claim 69, wherein said service location manager notifies said second service location manager of said assignment of said service provider to perform said service.

71. The system of Claim 69, wherein said service location manager notifies said second service location manager of completion of performance of said service by said service provider.

72. The system of Claim 56, wherein said service provider is supervised by a first service location manager, and said first service location manager transfers supervision of said service provider to a second service location manager.

73. The system of Claim 72, wherein said transfer is based on a computational load of said first service location manager.

74. The system of Claim 72, wherein said transfer is based on availability of resources of a service provider supervised by said second service location manager.

75. The system of Claim 56, wherein said service provider is selected to be supervised by said service location manager based on a network

communication condition between said service location manager and said service provider.

76. The system of Claim 56, wherein said plurality of service location managers comprises a master service location manager that monitors the status of other service location managers of said plurality of service location managers.

IX. Evidence Appendix

No evidence is herein appended.

X. Related Proceedings Appendix

No related proceedings.